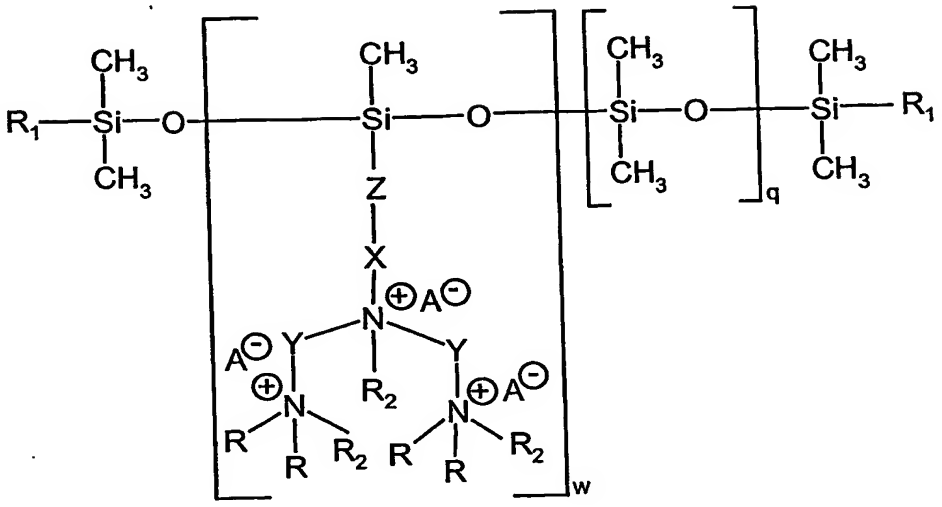
CLAIMS

1. Multiply quaternized polysiloxanes of the formula (S1)



S1

where

the sum total of (q + w) has a range of 10-1500 and the q/w ratio has a range of 5-600,

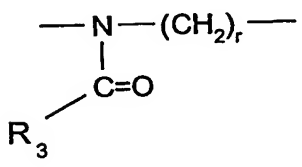
R is C_1-C_4-alkyl, linear or branched,

R_1 is hydrogen, C_1-C_3-alkyl or C_1-C_3-alkoxy,

R_2 is C_1-C_7-alkyl or benzyl,

X is a direct bond

or

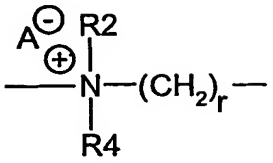


where

r is 1-4 and

R_3 is C_1-C_7-alkyl or -NH-C_1-C_7-alkyl,

or

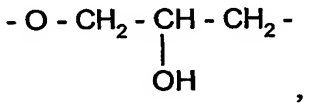


where

R_2 and r are each as defined above,

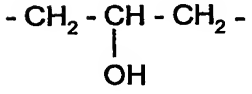
R_4 is C_1-C_3-alkyl,

or



,

Y is



or

$-(CH_2)_x-$,

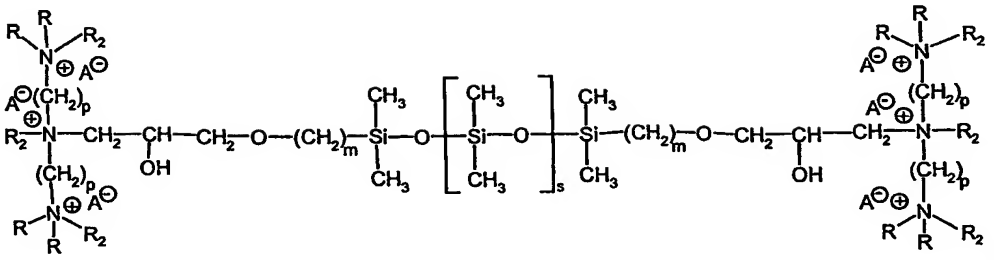
where

x is 1-4,

Z is C_2-C_4-alkylene, linear or branched and

A^- is $CH_3OSO_3^-$, chloride, bromide, iodide or tosylsulfate$^-$,

or of the formula **(S2)**



S2

where

R, R_2 and A^- have the same meaning as in formula (S1),

m is 1 - 4,

p is 1 - 4, and

s is 5 - 1500

2. Multiply quaternized polysiloxanes according to Claim 1 wherein the sum total of (q + w) has a range of 15-600 and the q/w ratio has a range of 10-400,

R is methyl, ethyl or propyl,

R_1 is H, methyl, $-OCH_3$ or $-OC_2H_5$,

R_2 is methyl or benzyl,

R_3 is methyl or $-NH-C_4H_9$,

R_4 is methyl,

Z is C_3-alkylene, linear or branched,

A^- is $CH_3OSO_3^-$ or chloride,

m is 3,

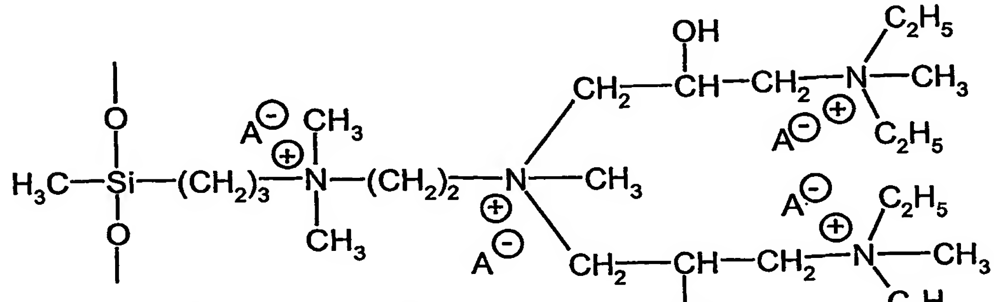
p is 3,

s is 10 - 600,

r is 2, and

x is 3.

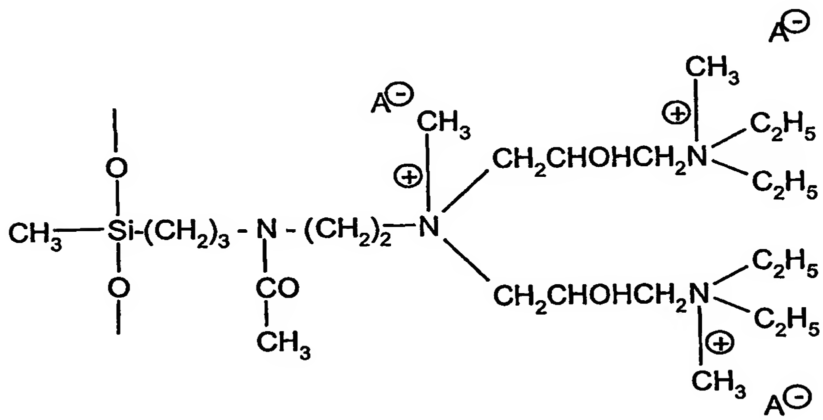
3. Multiply quaternized polysiloxanes according to Claim 1 or 2 having structural units of the formula E1



$A^{\ominus} = CH_3OSO_3^{\ominus}$

E1

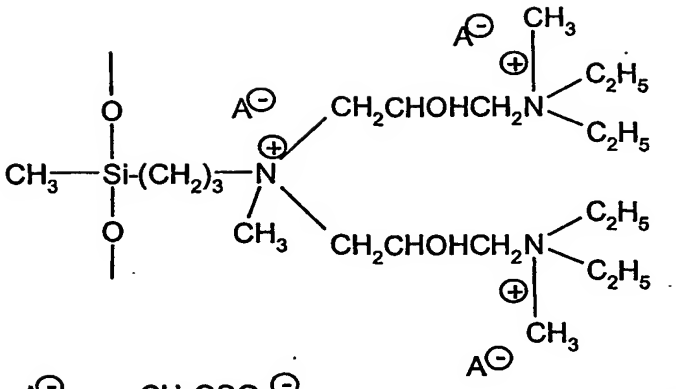
or having structural units of the formula E1a



$A^{\ominus} = CH_3OSO_3^{\ominus}$

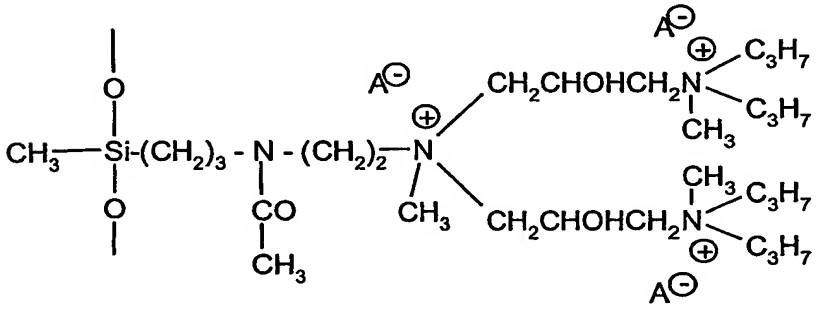
E1a.

4. Multiply quaternized polysiloxanes according to Claim 1 or 2 having structural units of the formula E2



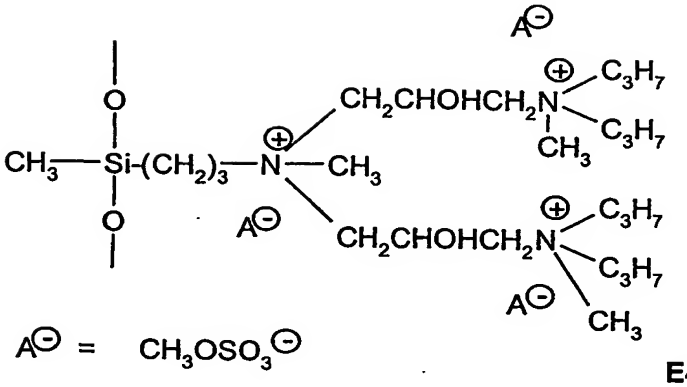
$A^{\ominus}$ = $CH_3OSO_3^{\ominus}$ **E2.**

5. Multiply quaternized polysiloxanes according to Claim 1 or 2 having structural units of the formula E3



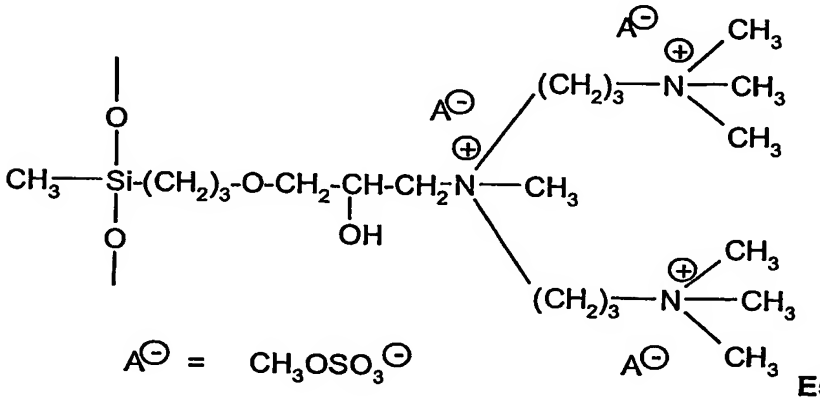
$A^{\ominus}$ = $CH_3OSO_3^{\ominus}$ **E3.**

6. Multiply quaternized polysiloxanes according to Claim 1 or 2 having structural units of the formula E4



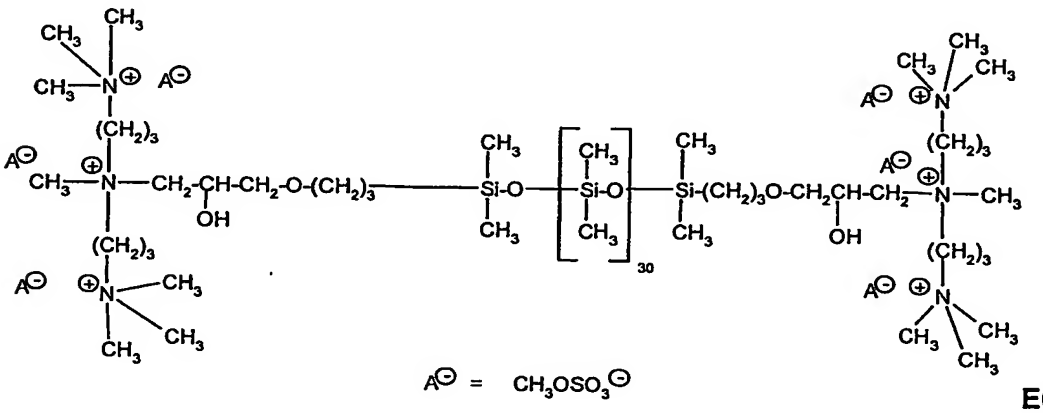
E4.

7. Multiply quaternized polysiloxanes according to Claim 1 or 2 having structural units of the formula E5



E5.

8. Multiply quaternized polysiloxanes according to Claim 1 or 2 of the formula E6



E6.

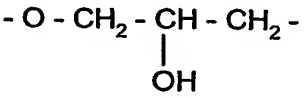
9. Process for preparing multiply quaternized polysiloxanes of the formula (S1) according to any one of Claims 1 to 6, characterized in that the following reactions are carried out:

A) reaction of dialkylamine with epichlorohydrin to form a glycidyldialkylamine,

B) reaction of the glycidyldialkylamine with 3-aminoalkyldialkoxymethylsilane or with 3-(2-aminoalkylamino)alkyldialkoxymethylsilane to form the corresponding silanes,

C) reaction of the resultant silanes with polydimethylsiloxanediol or with octamethylcyclotetrasiloxane or with tetraalkyl- or aryltrialkyl-ammonium hydroxide to form polysiloxanes, with subsequent quaternization to form the multiply quaternized polysiloxanes.

10. Process for preparing multiply quaternized polysiloxanes of the formula (S1) where Y is $-(CH_2)_x-$ and X is



characterized in that the following reactions are carried out:

A) reaction of N'-[3-(dialkylamino)alkyl]-N,N-dialkylalkane-1,3-diamine with dialkoxy(3-glycidyloxyalkyl)methylsilane,

B) reaction of the reaction product from A) with polydimethylsiloxanediol or with octamethylcyclotetrasiloxane, with subsequent quaternization.

11. Process for preparing multiply quaternized polysiloxanes of the formula (S2) according to Claims 1 or 2, characterized in that the following reactions are carried out:

A) reaction of octaalkylcyclotetrasiloxane with 1,1,3,3-tetraalkyldisiloxane,

B) reaction of the reaction product from A) with an allyl glycidyl ether and a hydrosilylation catalyst;

C) reaction of the reaction product from B) with N,N,N',N'-tetraalkyldialkylenetriamine to form the polysiloxane and subsequent quaternization.

12. Use of multiply quaternized polysiloxanes according to Claims 1 to 8 as a softener in the textile industry.